DOCUMENT RESUME

ED 256 518 PS 015 142

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TITLE An Analysis of Adult-Child Interaction Patterns in Three-Generational Black Families.
SPONS AGENCY National Science Foundation, Washington, D.C.
PUB DATE Apr 85
GRANT NSF-PRM-8210411
NOTE 19p.; Paper presented at the Biennial Meeting of the Society for Research in Child Development (Toronto, Ontario, Canada, April 25-28, 1985).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adults; *Blacks; Case Studies; Children; Communication Research; Comparative Analysis; *Family Structure; Grandparents; Nuclear Family; One Parent Family; *Parent Child Relationship
IDENTIFIERS Contingency Tables; *Conversation; Frequency Data; *Social Interaction

ABSTRACT

This report describes results of contingency-table analyses conducted on four types of black families. Eight families from a sample of 30 families who had been filmed on four occasions during evening meals are discussed as case studies. Two families chosen from each cell of a 2 x 2 factorial design consisting of family structure (one versus two parents) by grandmother's domicile (living with versus living away from the family) were coded to indicate the frequency family members spoke to one another. These frequencies were used to compute conditional probabilities representing the likelihood of a particular family member's interaction. The most significant findings were (1) a homogeneous interaction pattern in which the child(ren) and the adult(s) had an equal opportunity to converse with one another; (2) a dyadic asymmetric interaction pattern in which adults talked more frequently to one another than to the child(ren); and (3) a focal asymmetric interaction pattern in which a single adult or an only child spoke first and second more often than did other family members. It was suggested that, overall, the functional relationships of adult-child interaction patterns in black families have several implications for the socialization of black children. While the generality of these results are limited due to the nature of the case study approach, they do suggest important hypotheses for further research. (Author/RH)

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ED256518

An Analysis of Adult-Child Interaction Patterns in Three-Generational Black Families[1]

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Running head: Adult-Child Interaction Patterns

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Presented at a symposium during the Biennial Convention of the Society for Research in Child Development, Toronto, Ontario, Canada, April 1985. This study was supported by a grant from the National Science Foundation PRM-8210411. For correspondence write to Melvin N. Wilson, Department of Psychology, Gilmer Hall, University of Virginia, Charlottesville, Virginia 22901.

An Analysis of Adult-Child Interaction Patterns in Three-Generational Black Families[1]

Abstract

The results of contingency table analyses on four types of black families are presented. Eight families from a current sample of 30 families who have been filmed at four different evening meals are discussed as case studies. Two families chosen from each cell of a 2 x 2 factorial design consisting of family structure (one vs. two parents) by grandmother's domicile (living with vs. living away from the family unit) were coded for the frequency which family members spoke to each other. These frequencies were used to compute conditional probabilities which represent the likelihood of a particular family member interacting. The most significant findings were (1) a homogeneous interaction pattern in which the child(ren) and adult(s) had an equal opportunity to converse with one another; (2) a dyadic asymmetric interaction pattern in which adults talked more frequently to each other than to the child(ren); and (3) a focal asymmetric interaction pattern in which a single adult or an only child spoke first and second more often than the other family members. Overall, the functional relationships of adult-child interaction patterns in black families have several implications for the socialization of black children. While the generality of these results are limited due to nature of a case study, it does suggest important hypotheses which will be investigated in the larger study.

Recently, the emphasis in black family research has changed from the impact of parental absence on child development to the impact of the kin-help network on child development (Hale, 1982; McAdoo, 1980; Kellam, Ensminger, & Turner, 1977, 1980; Wilson, 1984). This change not only represents a shift from a concentration on dysfunctionality/pathology of black families to a focus on strength/resiliency of black families (Allen, 1978; Martin & Martin, 1978), but also it represents a contribution to our understanding of the positive influence of support networks on black families (McAdoo, 1978, 1980; Wilson, 1984).

Single parent family units have been a persistent phenomenon in the black community. Past and present demographical reports have indicated that black families have consistently had the highest incidences of single parent family units in the United States. Currently, the incidences of single parent families are 30% of white families, 33% of non-white ethnic families, and 40% of black families. These high rates reflect both the relative and general concern which this familial composition and structure could have on the development of American children.

A phenomenon which is juxtaposed to the high incidence of single parent families involves the reliance of black families on their extended family for child care assistance (McAdoo, 1978; Wilson, 1984). Research has shown that for the black single parent family, grandparents, uncles and aunts, siblings, cousins and even fictive kin often serve as surrogate parents in the rearing of young children (Martin & Martin, 1978; McAdoo, 1978; Wilson, 1984). Several studies indicated that single parent families were more involved in an extended family network than dual parent families (Colletta, 1981; McLanahan, Wedemeyer, & Adelberg, 1981; Wilson, 1984). Colletta (1981) indicated that the extended family network was relied upon more frequently for social support

and childcare in single parents than dual parents. Wilson (1984) found that grandmothers were perceived as supporting and encouraging children, expecting child competence, setting and reinforcing behavioral limits, and restricting child behavior to greater degrees when she lived with her single daughter than when she lived in the community.

Kellam and his associates (Kellam, Ensminger, & Turner, 1977; Kellam, Adams, Brown, & Ensminger, 1982) have suggested that one important contribution of these familial and friendship networks is their impact on the mother's feelings of aloneness. Social networks reduce these feelings of aloneness by (a) providing the mother and children with alternative sources of intimacy and emotional support (Kellam, Ensminger, & Turner, 1977; McLanahan, Wedemeyer, & Adelberg, 1980); (b) assisting the mother in the provision of parental tasks (Kellam, Adams, Brown, & Ensminger, 1982; McLanahan, Wedemeyer, & Adelberg, 1980; Wilson, 1984); and (c) assisting the mother in setting and supporting limits placed on the child(ren).

Moveover, the ability to maintain and use familial and friendship support in accomplishing parental tasks is not held by all single black mothers (Kellam, Ensminger, & Turner, 1977; Kellam, Adams, Brown, & Ensminger, 1982; Wilson, 1984). As with most abilities and attitudes, variations do exist. In a longitudinal study, Kellam, Adams, Brown, and Ensminger (1982) found that mothers who were adolescents at the birth of their first child were more likely to live as a single parent than mothers who were older at the birth of their first child. Kellam and his associate (1982) suggested that the mothers' ability to use familial networks was related to an arrested social development which coincided with the birth of their first child. These findings suggest the possibility of clinical interventions which assist single parents in developing and/or maintaining social support networks.

Most of the studies on single mother's social support network have relied on paper and pencil measures to assess involvement in networks. They have focused on the contribution of social support (Kellam, Ensminger, & Turner, 1977; Kellam, Adams, Brown, & Ensminger, 1982), on the nature of the support network (McAdoo, 1980; McLanahan, Wedemeyer, & Adelberg, 1980), on the impact on the level of stress experienced by the mother (McAdoo, 1980; McLanahan, Wedemeyer, & Adelberg, 1980), on the frequencies of contact (Hale, 1982), and on the density of the network (McLanahan, Wedemeyer, & Adelberg, 1980).

In contrast to these paper and pencil studies, Patterson (1979), using social interaction methodology, showed that single mothers responded to negative affect and behaviors more often than they responded to positive. Patterson (1979) has identified a number of negative contingencies which account for how an aggressive child learns and maintains maladaptive behaviors. Specifically, he charted the negative reinforcement contingencies within the families with deviant children and compared those contingencies to families with normal children. Patterson's data suggested the possibility that a wide range of coercive child behavior was under the control of a seemingly innocuous aversive event such as a "disapproval", a "tease", or a "whine". In fact, it appeared that these mothers ignored positive affect and behavior thus providing a negative contingency within their family interactional dynamics (Patterson, 1979).

While the effect of siblings on family interaction patterns have not been studied per se, several studies have considered the impact of siblings on child development (Dunn, 1983; Lytton, 1984; Seegmiller, 1980). It appears that children's impact on each other is greatly influenced by their number in the family household. Dunn (1980) found that younger children are attached to and model the behavior of older children. Seegmiller (1980) found a main

effect of child and sex of sibling on sibling interaction. While it is clear that siblings effect each other, the impact of siblings on adult-child interactions needs investigation.

This study represents a case study analysis of the impact of family structure and grandmother's residence on adult-child and child-child interaction patterns. Specifically, eight families representing four types of black families according to a factoral design based on family structure and grandmother's domicile were analyzed as case studies. Assuming that the interactions within a family are functionally related to each other, this study considered the effect that the number of adults and children present in the family had on the adult-child interactions and on the order of conversation. Generally, it was expected that dominance in the family interaction would be a function of the numbers of adults and children in the household. In multiple adults and children household, adults will interact with each other more often than with children, while children will interact with adults more often than with each other. Since the impact of other types of household composition on family interaction is not clear, no other a priori interaction patterns were postulated. The null hypothesis is that family interactions fit a homogeneous pattern in which adults and children have equal opportunity to interact. The term "multiple adults" is used to describe family units that consisted of either dual parents with or without the grandmother present or a single parent with the grandmother present.

Method

Participants. The eight black families used in this presentation were chosen from a current sample of 56 black families who have completed their participation in the study. When the study is completed, 60 black families

will have participated with 15 families in each cell of the 2 x 2 factorial design.

The families were recruited in a rural southern university community of 90,000 people to fit into a 2 x 2 factorial design of family structure (single vs. dual parent) by grandmother's domicile (residing with the family vs. residing at least 10 miles away). In addition, all participating families had at least one child between the ages of 8 and 12 years old. These age restrictions were employed to ensure that the target child was old enough to read and complete paper and pencil measures, but not yet experiencing the developmental changes associated with adolescence.

Because this presentation is a case study of only eight of the prospective 60 black families to be sampled, the demographic data listed here provide a general description of only these eight families. No conclusions or inferences about the demographic characteristics of the rest of the sample can be drawn from these data.

The mean age of the mothers of these eight black familes was 34 years, ranging from 28 to 43 years old. The education level of the mothers varied from some high school for two mothers to college graduation for three mothers. All of the families were relatively small, from one family with three children, to five families with only one child. The incomes ranged from less than $4,500 for one single parent family to more than $34,500 for one dual parent family. Overall, the participants were moderately educated, lower-middle class, young black families with one to two children.

Procedures. The families were recruited to the study through an informal referral network consisting of local black community leaders and participants in a previous study by Wilson (1984). The first author made the initial telephone contact with the families. The initial interview was conducted in

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the families' homes in the evening by the second author (a white male) and a black, undergraduate female. The initial interview lasted approximately an hour and one-half and consisted of a variety of behavioral, self-report, and demographic measures administered separately to the adults by the second author and to the children by an undergraduate research assistant.

Four videotaping sessions of the family's evening meals were completed by either two black undergraduate research assistants or the second author and a black undergraduate research assistant. The families were requested to adhere to certain rules during the filming of the evening meals in order to facilitate family interaction and minimize interruptions. The rules were: (1) Everyone in the household must be present at every filming. (2) The family was limited to one room while filming. (3) No television or radio may be operating during filming. (4) No guests at the meal. (5) Briefly answer incoming telephone calls and no outgoing telephone calls. (6) No talking to the research assistants once the filming begins.

Each filming session was arranged at the family's convenience, to coincide with their normal evening mealtime. The film session lasted as long as it took the family to eat their meal, generally 25 to 35 minutes. The families were paid $125 for their completion of the initial interview session and all four filming sessions.

Data Coding. For six of the families, the unit of analysis was a 15 second interval, which is referred to as a frame. The other two families were coded using a six second interval as a frame. The data were coded in each time frame by scoring the person who spoke first, the person who spoke second, and so on. For each family, at least 160 frames were coded to establish the interactional patterns and functional relationships between the adults' conversation and the child(ren)'s conversation. The reliability of the coding

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was established by using interjudge reliability of greater than .80. Disagreements about behavioral categories were resolved by consensus among the coders.

Results

The results were computed for each family using a contingency table analysis which is described by Castellan (1979). In general, our test statistic is given as:

$$\chi^2 = \Sigma_{ij} \frac{(f_{ij} - np_{ij})^2}{np_{ij}}$$

where f_{ij} is the cell frequency of the joint occurrence of the i^{th} person who talked first and the j^{th} person who talked second; np_{ij} is the total frequency of conversation switches. The degrees of freedom are I (J-1).

Before testing the other hypotheses, the assumption of dependency of family interactions was tested for each family. The null hypothesis which involved a test of independence was rejected at significance levels at least $p < .0001$. The chi square values ranged from 33.3 to 114.9.

Next, the relative frequency of each member's interaction was considered. Figure 1 addresses the adjusted frequency of each family member's interaction. Two patterns are observed in this figure. First, adults talked more frequently than children. Second, ranking the frequency from the most to the least, the following order of frequency occurs: (a) mothers, (b) grandmothers, (c) fathers, and (d) children.

Finally, contingency tables were computed which compared the likelihood of adult-adult, adult-child, and child-child interaction patterns. Table 1 presents the outcome of those computations. Several different patterns

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emerged among the eight families. In the single adult-multiple children family unit, the mother initiated interaction and responded to interaction more often than any of the children. Also, the children interacted more with their mother than among themselves. In contrast to this situation, two different asymmetric conversation patterns occurred in the multiple adult-only child family units. For families 5 and 7, the child spoke first and second more often than either parent; while in families 4 and 8, adults conversed more with each other than with the child. The patterns of interaction in family 1 were equal. In the two multiple adults-multiple children family units, family 2 conversed in the expected pattern of adults interacting more with each other than with children and children interacting with adults more than with each other. Family 3 conversed in a completely homogeneous pattern.

Overall, three interactional patterns were observed (a) a homogeneous interaction style in which all family members interacted at an equal rate (families 1, 3, and 5); (b) a dyadic asymmetric interaction pattern in which two family members interacted first and second more frequently than others (families 2, 4, and 8); and (c) a focal asymmetric interaction pattern in which a family member interacted first and second more frequently than others (families 6 and 7).

Insert Table 1 about here

Discussion

At first glance, the outcome of the contingency table analyses represents an array of conversation patterns. However, close scrutiny reveals several patterns which are consistent with the literature on the socialization of children. Of the several asymmetric interaction patterns observed, the one involving the single adult-multiple children is the most interesting. In this

family, the mother led the conversation and was the focus of conversation much more frequently than any of her children. Over a long time period, a single adult with several elementary school children could become highly stressed by this constant demand for attention. Other researchers (Hetherington, Cox, & Cox, 1978; McLanahan, Wedemeyer, & Adelberg, 1981) have also discussed the potential impact of this stressful family situation on children's social adjustment. They have suggested that the single mother is overwhelmed by the children's constant demand for attention and thus can only respond to children's inappropriate behaviors. In addition, the children are more likely to assume adult tasks and responsibilities because not enough adults are present to take care of all the familial demands (Lee, 1977).

The other focal asymmetric interaction pattern involved a multiple adult-only child family (family 7). Although the child was the most frequent family conversationalist, this situation is more similar to the homogeneous interaction patterns (families 1, 3, and 5). A child was equally as likely as an adult to speak first or second. The child(ren) had adequate opportunity for adult attention. Rather than socialize children through the assumption of adult roles these interaction styles reflect a socialization process of shaping.

In the dyadic asymmetric interaction situation, adults interacted primarily with each other. Although there were more adults present, adult-child interactions occurred less frequently than adult-adult interactions. Children interacted equally with siblings and adults but their total amount of conversation time was less than that of the adults.

This study is consistent with others that have considered the role of extended family members in childrearing. Martin and Martin (1978) discussed the additional resources which the extended family offered the dependent

family unit. Family units which were in a crisis situation could rely on the extended family for childrearing assistance and other material support. The availability of an additional adult appeared to be the most important aid provided. Hale (1982) indicated that the mother's mother took a much different role in black families than in white families. The black grandmother was more likely than her white counterparts to live in close proximity to her daughter's family of procreation, to care for her grandchildren, and to provide financial aid to her daughter.

This study provides further support for clinical interventions which are directed at developing the social support networks of single mothers. A crucial factor for single mothers with multiple children is developing and maintaining supportive relationships with other adults. Another factor that may help mitigate the problem of parental aloneness is the present of an older child who could act as a parent and a supportive adult.

Some limitations of this study should be considered. First, a case study approach was employed because it permitted a preliminary examination of some of the factors thought to be relevant to the social interaction patterns of these families. Although it was important to consider these data in order to generate additional hypotheses regarding the nature of social interactions within black families, it would be inappropriate to generalize the findings beyond these examples.

Second, the operationalization of dominance in terms of frequency of speaking was done as a first step towards understanding the many facets relevant to dominance in social interactions. In order to consider dominance more fully, we will have to examine the content and the directionality of the conversations and the impact of statements on the receivers. Those issues were not considered at this preliminary stage. This study did provide some

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interesting patterns which were consistent with the findings of the other studies and it furnished a foundation from which to do more complex analyses.

References

Allen, W.R. (1978). The search for applicable theories of black family life. Journal of Marriage and the Family. 40. 117-129.

Dunn, J. (1983). Sibling relationships in early childhood. Child Development. 54. 787-811.

Colletta, N.D. (1983). Social support and risk of maternal rejection by adolescent mothers. Journal of Psychology. 109 (2), 191-197.

Hale, J. (1982). Black Children: Their roots, culture and learning styles. Provo, UT: Brigham Young University Press.

Kellam, S.G., Ensminger, M.A., & Turner, J.T. (1977). Family structure and the mental health of children. Archives of General Psychiatry. 34. 1012-1022.

Kellam, S.G., Adams, R.G., Brown, C.H., & Ensminger, M.E. (1982). The long-term evolution of the family structure of teenage and older mothers. Journal of Marriage and the Family. 46. 539-554.

Lee, G.R. (1977). Family structure and interaction. New York: J.B. Lippincott Company.

Martin, E. & Martin, D. (1978). The black extended family. Chicago: University of Chicago Press.

McAdoo, H.P. (1978). Factors related to stability in upwardly mobile black families. Journal of Marriage and the Family. 40. 761-776.

McAdoo, H.P. (1980). Black mothers and the extended family support network. In L.F. Rodgers-Rose (Ed.), The Black Woman (pp. 125-144). Beverly Hills, CA: Sage Publications Inc.

McLanahan, S.S., Wedemeyer, N.V., & Adelbery, J. (1981). Network structure, social support and psychological well-being in the single-parent family. Journal of Marriage and the Family. 43. 601-611.

Seegmiller, B.R. (1980). Sex-role differentiation in preschoolers: Effects of maternal employment. Journal of Psychology, 104, 185-189.

Wilson, M.N. (1984). Mothers' and grandmothers' perception of parental behavior in three-generational black families. Child Development, 55,

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Table 1
Chi Square Table of Family Interactions

Family Number	No. of Adults	No. of Children	Null Hypothesis	Adjusted Frequency			Comparisons	Chi Square (df = 1)	Null Hypothesis Accepted or Rejected
1	1	1	Homogenous		A_1	C_1			Accepted
				A_2	0	47	$P(A_1--C_2/A_1) = P(C_1--A_2/C_1)$	0	Chi square results not valid.
				C_2	47	0			
2	2	2	Homogenous		A_1	C_1			
				A_2	50	11	$P(C_1--A_2/C_1) = P(C_1--C_2/C_1) =$		
				C_2	6	4	$P(A_1--A_2/A_1) = P(A_1--C_2/A_1)$	79.6*	Rejected
3	3	2	Homogenous		A_1	C_1			
				A_2	14	15	$P(C_1--A_2/C_1) = P(C_1--C_2/C_1) =$		
				C_2	12	13	$P(A_1--A_2/A_1) = P(A_1--C_2/A_1)$	.37#	Accepted
4	2	1	Homogenous		A_1	C_1			
				A_2	41	23	$P(A_1--A_2/A_1) = P(A_1--C_2/A_1) =$		
				C_2	19	0	$P(C_1--A_2/C_1)$	9.93*	Rejected

Table Legend: A_1 = First speaker was an adult. A_2 = Second speaker was an adult.
C_1 = First speaker was a child. C_2 = Second speaker was a child.
* = $p < .001$ # = Not significant

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Table 1
Chi Square Table of Family Interactions

Family Number	No. of Adults	No. of Children	Null Hypothesis	Adjusted Frequency			Comparisons	Chi Square (df = 1)	Null Hypothesis Accepted or Rejected
					A_1	C_1			
5	2	1	Homogenous	A_2	56	42	$P(A_1 - C_2/A_1) = P(A_1 - A_2/A_1) = P(C_1 - A_2/C_1)$	$2.82^{\emptyset}$	Accepted
				C_2	42	0			
6	1	3	Homogenous	A_2	0	2	$P(A_1 - C_2/A_1) = P(C_1 - A_2/C_1) = P(C_1 - C_2/C_1)$	17.25^{*}	Rejected
				C_2	36	8			
7	2	1	Homogenous	A_2	27	53	$P(A_1 - A_2/A_1) = P(A_1 - C_2/A_1) = P(C_1 - A_2/C_1)$	8.26^{*}	Rejected
				C_2	47	0			
8	2	1	Homogenous	A_2	40	29	$P(A_1 - A_2/A_1) = P(A_1 - C_2/A_1) = P(C_1 - A_2/C_1)$	4.32^{*}	Rejected
				C_2	24	0			

Table Legend: A_1 = First speaker was an adult. A_2 = Second speaker was an adult.
C_1 = First speaker was a child. C_2 = Second speaker was a child.
* = $p < .001$ $^{\emptyset}$ = Not significant

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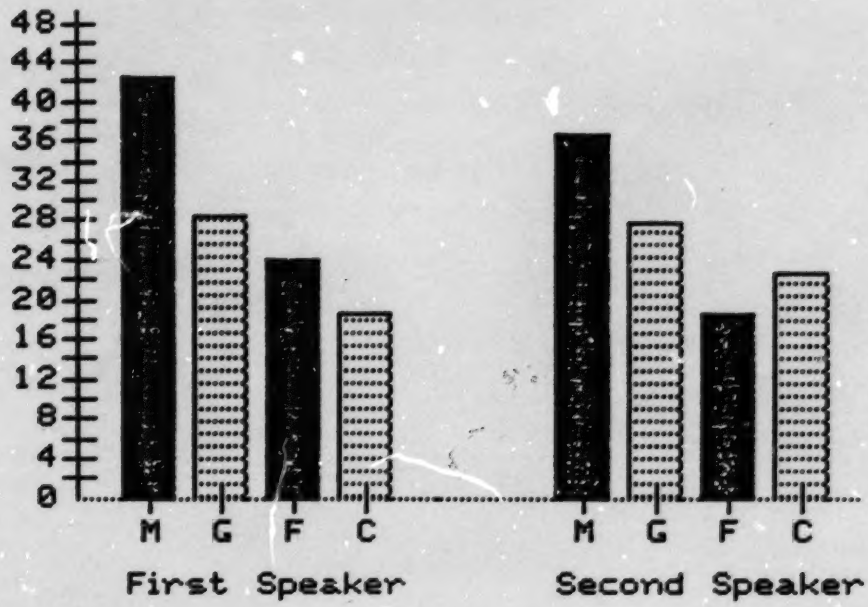
Figure 1
Mean Adjusted Frequency of
Family Member Interactions



Legend:
M = Mother
G = Grandmother
F = Father
C = Children